SYSTEM AND METHOD FOR PRINTING DETAILED ACCOUNT

Technical Field

The present invention relates to a system and method for printing a detailed account , and more particularly, to a system and method for printing a detailed account using a mobile communication terminal having an infrared financial message (IrFM) transmission function and a cash dispenser (CD)/automatic teller machine (ATM) having an IrFM reception function.

Background Art

When a user who uses a financial card issued by a variety of financial organs, such as banks or credit card companies inquires own overall account details using own financial card, a conventional CD/ATM provides only current balance information on a corresponding account. Thus, there are inconveniences that the user should visit a corresponding financial organ personally whenever the user checks own detailed account.

In particular, when the user holds a plurality of financial cards, there are inconveniences that the user should carry the financial cards in a wallet so as to inquiry accounts of the financial cards, and thus, the user may lose the financial cards easily.

Meanwhile, a variety of mobile communication terminals such as mobile phones, PCS terminals, and PDA phones, support a variety of banking functions, such as user's card price inquiry and settlement, account balance inquiry, deposit transfer and remittance, and loan inquiry and redemption using an IC card chip, such as an embedded or external smart card chip or a traffic card chip in which personal financial information, such as a mobile communication terminal user's account number for banking and a personal identification number (PIN) for user certification is stored.

However, even though the user uses a mobile communication terminal having a conventional IC card chip supporting a variety of banking functions, the user cannot print

and check own detailed account personally.

Disclosure

To solve the above-described problems, the present invention provides a system and method for printing a detailed account in which a user's detailed account for a specific account is inquired and printed using a CD/ATM having an IrFM reception function by a mobile communication terminal user's request having an IrFM transmission function.

According to an aspect of the present invention, there is provided a system for printing a detailed account, the system comprising a mobile communication terminal, which includes an embedded or external IC card chip in which a user's account number for supporting a banking function and a personal identification number (PIN) for user certification are stored as personal financial information, when there is a user's PIN certification request, performs PIN certification stored in the IC card chip by driving an internal chip driver, and prints a detailed account request IrFM including a user's account number stored in the IC card chip to an external device via an IrFM transmission port; a CD/ATM, which displays a user's account password input message on a banking transaction display window when receiving the detailed account request IrFM of the mobile communication terminal via an IrFM reception port, if a user's account password is input, transmits the detailed account request message with respect to a corresponding account to a corresponding financial organ, and prints a detailed account message transmitted from the corresponding financial organ as a detailed account to a printer; and a financial organ banking server, which checks a detailed account with respect to a corresponding account and transmits a detailed account message to the CD/ATM when receiving the detailed account request message of the CD/ATM.

According to another aspect of the present invention, there is provided a method of printing a detailed account, the method comprising when a user presses a specific key of a mobile communication terminal and requests for performance of an application for printing

a detailed account, displaying a personal identification number (PIN) input screen on a display window and inputting a PIN; when the user inputs own PIN, determining whether or not a PIN stored in the accessed IC card chip is coincident with the PIN inputted by the user, by driving an internal chip driver; when the PIN inputted by the user is coincident with the PIN stored in the IC card chip, displaying an account number selection screen on the display window so that the user selects a specific account number to be printed as a detailed account; when the user selects a specific account number of a plurality of user's account numbers stored in the IC card chip, accessing the account number selected by driving the chip driver, generating a detailed account request IrFM including the selected user's account number, and printing the detailed account request IrFM to a CD/ATM via an IrFM transmission port; when receiving the detailed account request IrFM of the mobile communication terminal via an IrFM reception port, displaying a user's account password input message on a banking transaction display window so that the user inputs a password of an account requested for a detailed account; when the account password inputted by the user is correct, transmitting the detailed account request message with respect to a corresponding account to the corresponding financial organ banking server; transmitting a detailed account message with respect to a corresponding account to the CD/ATM; and printing the detailed account message transmitted from the financial organ banking server as a detailed account to a printer.

Description of Drawings

Fig. 1 shows a structure of a system for printing a detailed account according to an embodiment of the present invention; and

Fig. 2 is a flowchart showing a method of printing a detailed account according to another embodiment of the present invention.

<Explanation of Reference numerals designating the Major Elements of the Drawings>

10: mobile communication terminal	11: IC card chip
12: chip driver	13: IrFM transmission port
20: CD/ATM	21: IrFM reception port
22: display window	23: key manipulation unit
24: printer	30: financial organ banking server

Best Mode

Hereinafter, exemplary embodiments of the present invention will be described with reference to the accompanying drawings.

Referring to Fig. 1, a mobile communication terminal 10 includes an embedded or external IC card chip 11 in which a user's account number for supporting a banking function and a personal identification number (PIN) for user certification are stored as personal financial information.

The mobile communication terminal 10 mounts an application for performing a function of printing a detailed account. When a user presses a specific function key of the mobile communication terminal 10 and requests for performance of the application for printing a detailed account, the mobile communication terminal 10 displays a PIN input screen on a display window.

In this case, when the user inputs own PIN, the mobile communication terminal 10 determines whether or not a PIN stored in the accessed IC card chip 11 is coincident with the PIN inputted by the user, by driving an internal chip driver 12. When the PINs are coincident with each other, the mobile communication terminal 10 generates a detailed account request IrFM including a user's account number stored in the IC card chip 11 and prints the detailed account request IrFM to a financial organ banking server 30 via an IrFM transmission port 13.

The mobile communication terminal 10 mounts an application for adding and

updating an account number required for printing a detailed account. When the user presses a specific function key of the mobile communication terminal 10 and requests for performance of the application for adding and updating the account number, the mobile communication terminal 10 displays a PIN input screen on a display window.

In this case, when the user inputs own PIN, the mobile communication terminal 10 determines whether or not the PIN stored in the accessed IC card chip 11 is coincident with the PIN inputted by the user, by driving an internal chip driver 12. When the PINs are coincident with each other, the mobile communication terminal 10 transmits an account number adding and updating request message to the financial organ banking server 30 via a wireless communication network including a wireless base station and a packet data switch network (PDSN) and adds a newly added and updated account number transmitted from the corresponding financial organ banking server 30 to the IC card chip 11 by driving the chip driver 12 and updates and stores the added account number.

When receiving the detailed account request IrFM of the mobile communication terminal 10 via an IrFM reception port 21, first, a CD/ATM 20 displays a user's account number input message on a banking transaction display window 22.

When the user inputs a user's account password by manipulating a key manipulation unit 23, the CD/ATM 20 transmits the detailed account request message with respect to a corresponding account to a corresponding financial organ and prints a detailed account message transmitted from the corresponding financial organ as a detailed account to a printer 24.

When receiving the detailed account request message of the CD/ATM 20, the financial organ banking server 30 checks a detailed account with respect to a corresponding account and transmits a detailed account message to the CD/ATM 20.

The system for printing a detailed account having the above structure according to the present invention is operated using a method of printing a detailed account shown in Fig. 2.

Referring to Fig. 2, in step S10, when a user presses a specific key of a mobile communication terminal 10 using the mobile communication terminal 10 including an IC card chip 11, such as an embedded or external smart card chip or a traffic card chip storing personal financial information for supporting a banking function so as to check a detailed account with respect to a specific account number, the mobile communication terminal 10 performs an application for printing the detailed account and displays a PIN input screen on a display window (not shown), and the user inputs own personal identification number (PIN).

Subsequently, in step S20, when the user inputs own PIN for user certification by manipulating a number key button of the mobile communication terminal 10 on the PIN input screen displayed on the display window, the mobile communication terminal 10 determines whether or not a PIN stored in the accessed IC card chip 11 is coincident with the PIN inputted by the user, by driving an internal chip driver 12.

In this case, when the PIN inputted by the user is not coincident with the PIN stored in the IC card chip 11, the mobile communication terminal 10 displays a PIN discord message or a PIN re-input message on the display window.

Meanwhile, in step S30, when the PIN inputted by the user is coincident with the PIN stored in the IC card chip 11, the mobile communication terminal 10 displays an account number selection screen on the display window so that the user selects a specific account number to be printed as a detailed account.

In this way, in step S40, in a state where a selection screen of a plurality of account numbers stored in the IC card chip 11 of the mobile communication terminal 10 is displayed on the display window, the mobile communication terminal 10 accesses a specific account number of the plurality of account numbers stored in the IC card chip 11 by driving the chip driver 12, generates a detailed account request IrFM including the selected user's account number, and trasnmits the detailed account request IrFM to a CD/ATM 20via an IrFM transmission port 13.

Subsequently, in step S50, when receiving the detailed account request IrFM of the mobile communication terminal 10 via an IrFM reception port 21, the CD/ATM 20 displays a user's account number input message on a banking transaction display window 22 so that the user inputs a password of an account requested for a detailed account.

In this case, when the account password inputted by the user is incorrect, the CD/ATM 20 displays an account password discord message or an account password re-input message on the display window 22.

Meanwhile, when the account password inputted by the user is correct, the CD/ATM 20 transmits the detailed account request message with respect to a corresponding account to the corresponding financial organ banking server 30 via a wireless communication network including a wireless base station and a PDSN.

In this case, in step S70, the financial organ banking server 30 checks a detailed account with respect to a specific account requested by the CD/ATM 30 and transmits a detailed account message with respect to a corresponding account to the CD/ATM 20. In this case, a period of the detailed account provided by the financial organ banking server 30 may be determined according to date or time of a specific day.

In step S80, when the financial organ banking server 30 transmits the detailed account message with respect to the specific account requested by the user to the CD/ATM 20, the CD/ATM 20 prints the detailed account message as a detailed account to a printer 24.

Industrial Applicability

As described above, in the system performing a method of printing a detailed account according to the present invention, when after certification of personal financial information stored in an IC card chip of a mobile communication terminal storing the personal financial information for supporting a banking function, the mobile communication terminal transmits a detailed account request IrFM including an account

number selected by a user to a CD/ATM having an IrFM reception port, the CD/ATM requests a detailed account with respect to a corresponding account of a banking server, prints an inquiry result as a detailed account, and provides the detailed account to the user, such that the user simply checks the detailed account with respect to own specific account via the CD/ATM using the mobile communication terminal.

In addition, in the system performing the method of printing a detailed account according to the present invention, the mobile communication terminal can add and update a plurality of user's account numbers to the IC card chip, such that inconveniences that the user should carry a plurality of financial cards in a wallet are removed and an accident of financial card loss is prevented in advance.

While the present invention has been particularly shown and described with reference to exemplary embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the invention as defined by the following claims.